


TECHNOLOGICAL INSTITUTE OF THE PHILIPPINES
Quezon City
2018 CURRICULUM FOR BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING (BSIE)

IMPORTANT: Registration in any course/s without all the pre-requisite/s, correct sequence and authorized load shall not be given any credit regardless of the grade/s obtained.

NAME : _____ STUDENT NO : _____

COURSE CODE		DESCRIPTIVE TITLE	LEC HOURS	LAB HOURS	CREDIT UNITS	PRE-REQUISITE(S)/CO-REQUISITE(S)
FIRST YEAR, FIRST SEMESTER (18 UNITS)						
MATH	016	Calculus 1	3	0	3	
CHEM	001C	Chemistry for Engineers	3	3	4	
GEC	001	Understanding the Self	3	0	3	
GEC	005	Purposive Communication	3	0	3	
MATH	006	Discrete Mathematics	3	0	3	
PE	001	Physical Education 1	2	0	2	
NSTP	001	National Service Training Program 1	(3)	0	(3)	
TOTAL			17	3	18	
FIRST YEAR, SECOND SEMESTER (21 UNITS)						
MATH	017	Calculus 2	3	0	3	MATH 016(P)
PHYS	001C	Calculus-Based Physics	3	3	4	MATH 017(C)
IE	004	Statistical Concepts, Theories and Analysis for Industrial Engineering 1	3	0	3	
GEC	004	Mathematics in the Modern World	3	0	3	
GEE	001	General Education Elective 1	3	0	3	
SOCSC	006	Principles of Economics	3	0	3	
PE	002	Physical Education 2	2	0	2	PE 001(P)
NSTP	002	National Service Training Program 2	(3)	0	(3)	NSTP 001(P)
TOTAL			20	3	21	
SECOND YEAR, FIRST SEMESTER (25 UNITS)						
IE	302	Industrial Materials and Processes	2	3	3	PHYS 001C(P)
ITE	001A	Computer Fundamentals and Programming	0	6	2	
MECH	001	Engineering Mechanics	3	0	3	PHYS 001C(P)
SOCSC	005	Life and Works of Rizal	3	0	3	
IE	005	Statistical Concepts, Theories and Analysis for Industrial Engineering 2	2	3	3	IE 004(P)
IE	006	Strategic and Industrial Organization Management	3	0	3	2nd Year Standing
MATH	010	Differential Equations	3	0	3	MATH 017(P)
GEE	002	General Education Elective 2	3	0	3	
PE	003	Physical Education 3	2	0	2	PE 001(P)
TOTAL			21	12	25	
SECOND YEAR, SECOND SEMESTER (25 UNITS)						
IE	014	Advanced Mathematics for Industrial Engineering	3	0	3	MATH 010(P)
MATH	013	Linear Algebra with MATLAB	2	3	3	MATH 016(P)
CPE	003	Computer-Aided Drafting	0	3	1	
IE	007	Work Study and Measurement/Productivity Analysis	3	3	4	IE 005(P) IE 006(P) IE 302(P)
TECH	101	Introduction to Engineering Entrepreneurship	3	0	3	2nd Year Standing
AC	004	Financial Accounting	3	0	3	SOCSC 006(P)
IE	008	Industrial and Organizational Psychology	3	0	3	2nd Year Standing
GEE	003	General Education Elective 3	3	0	3	
PE	004	Physical Education 4	2	0	2	PE 001(P)
TOTAL			22	9	25	
THIRD YEAR, FIRST SEMESTER (24 UNITS)						
GEC	002	Readings in Philippine History	3	0	3	
IE	003A	Operations Research 1: Deterministic Approach	2	3	3	IE 014(P) MATH 013(P)
IE	009	Ergonomics 1: Physical and Cognitive Ergonomics	2	3	3	IE 007(P) IE 008(P)
IE	304	Quality Management Systems	3	0	3	IE 005(P) IE 007(P)



COURSE CODE		DESCRIPTIVE TITLE	LEC HOURS	LAB HOURS	CREDIT UNITS	PRE-REQUISITE(S)/CO-REQUISITE(S)
ME	004	Thermodynamics	3	0	3	MATH 017(P) PHYS 001C(P)
ME	005	Engineering Economics	3	0	3	3rd Year Standing
AC	005	Managerial Accounting	3	0	3	AC 004(P)
IE ELEC	1	IE Elective 1	3	0	3	See track for pre-requisite(s)
TOTAL			22	6	24	
THIRD YEAR, SECOND SEMESTER (25 UNITS)						
GEC	006	Art Appreciation	3	0	3	
GEC	003	The Contemporary World	3	0	3	
EE	001	Basic Electrical Engineering	2	3	3	PHYS 001C(P)
IE	010	Ergonomics 2: Work Design	2	3	3	IE 009(P)
IE	404A	Operations Research 2: Stochastic Approach with Simulation	2	3	3	IE 003A(P) MATH 006(P)
IE	405	Project Feasibility	2	3	3	AC 005(P) ME 005(P)
IE	011	Production and Operations Management with Industry Software Applications	3	3	4	IE 003A(P) IE 304(P) IE 404A(C)
IE ELEC	2	IE Elective 2	3	0	3	See track for pre-requisite(s)
TOTAL			20	15	25	
FOURTH YEAR, FIRST SEMESTER (24 UNITS)						
ENVI	001A	Environmental Science	3	0	3	4th Year Standing
GEC	008	Ethics	3	0	3	
IE	505	Systems Engineering	3	0	3	IE 011(P)
IE	504	Multi-Criteria Decision Making	3	0	3	IE 404A(P)
IE	018	IE Design Project1	2	3	3	4th Year Standing,IE 504(C)
GEC	007	Science, Technology and Society	3	0	3	
IE	501	Undergraduate Research for IE	1	6	3	IE 005(P) IE 011(P)
IE ELEC	3	IE Elective 3	3	0	3	See track for pre-requisite(s)
TOTAL			21	9	24	
FOURTH YEAR, SECOND SEMESTER (18 UNITS)						
IE	017	On-the-Job Training for IE	0	240	2	4th Year Standing
BOSH	101	Basic Occupational Safety and Health	3	0	3	4th Year Standing
IE	012	Seminar/Coloquia for IE	0	3	1	IE 501(P)
IS	001	Information Systems	3	0	3	IE 013(C)
IE	013	Supply Chain Management	3	0	3	4th Year Standing,IE 011(P)
IE	019	IE Design Project 2	1	6	3	Graduating IE 018(P)
IE	015	Industrial Engineering Values and Ethics	3	0	3	Graduating
TOTAL			13	249	18	
ELECTIVE COURSES						
TRACK ELECTIVE 1 (Organization and Decision Systems)						
IE-E1	408	Project Management	3	0	3	IE 003A(C) TECH 101(P)
IE-E2	573	Risk Management	3	0	3	IE 304(P)
IE-E3	016	Special Topics and Problems in IE	3	0	3	IE 011(P)
TOTAL			9	0	9	
TRACK ELECTIVE 2 (Technopreneurship)						
TECH	102	Technopreneurship 2	3	0	3	TECH 101(P)
TECH	103	Technopreneurship 3	3	0	3	TECH 102(P)
TECH	104	Technopreneurship 4	3	0	3	TECH 103(P)
TOTAL			9	0	9	
TRACK ELECTIVE 3 (Railway Engineering)						
RWE	001	Introduction to Railway Systems and Engineering	3	0	3	
RWE	023	Railway Management, Governance and Operations	3	0	3	RWE 001(P)
RWE	004	Advanced Topic on Railway Engineering	3	0	3	RWE 023(P)
TOTAL			9	0	9	
TRACK ELECTIVE 4 (Data Science)						



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	CPE	311	Computational Thinking with Python	2	3	3	IE 005(P) MATH 013(P)
	CPE	312	Predictive Analytics using Machine Learning	2	3	3	CPE 311(P)
	CPE	313	Advanced Machine Learning and Deep Learning	2	3	3	CPE 312(P)
	TOTAL			6	9	9	

CREDENTIALS PRESENTED:

- () F137A () NSO Birth Certificate
- () F138 () HD
- () GMC () TOR

DEFICIENCY/IES:

Evaluated By: _____

Date: _____

Received By: _____

Date: _____

LEGEND

P = Pre-requisite

C = Co-requisite

NOTE: EVALUATION IS TENTATIVE AND MAY BE REVISED FOR SOME VALID CAUSES OR REASONS OR IF OMISSIONS AND/OR LACK OF UNITS CREDITED BE DISCOVERED LATER.